B. Mukherjea O. Y-4,5 (ca. 1933-1939) 1962
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539 Next Thàkur Jiu ordered the lobster. He also failed. Then came the chance of the "Raghòp'-boar" (*whale*). He tried to bring earth on his back as well [825] as with the mouth. He was also unsuccessful, but as a sign of his efforts, his species have no scales on their backs even to-day.

The crab, summoned next, shared the fate of his predecessors.

Then the Earth-worm came forward. "O Thàkur Jiu," he said, "I can bring up the soil you ask for, if the tortoise stands still on water." The tortoise did as he was requested. He stood on the water with his legs chained.....The Earth-worm came down and reached the subsoil with his tail on the back of the tortoise. He began to eat the soil with his mouth and transmitted it through his hind portion. And thus earth stuck on the back of the tortoise. For a long time, the Earth-worm continued the operations and when he ceased, the earth was created.

At first, the surface was very uneven. Then Thàkur Jiu harrowed the earth. But even then many ridges remained. And they became the hills. The foam, floating on the water, next touched the earth. [824] On it he planted "sirom"[1] (*Andropogon Muricatus*) [42] plants with which broom-sticks are made.

1. Mayurbhanj Santals substituted *Karam* trees (a large forest tree, Adina cordifolia).

3t Mukherjea O. Y-4, 6 (ca. 1933-1939) 1962
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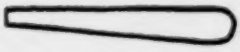
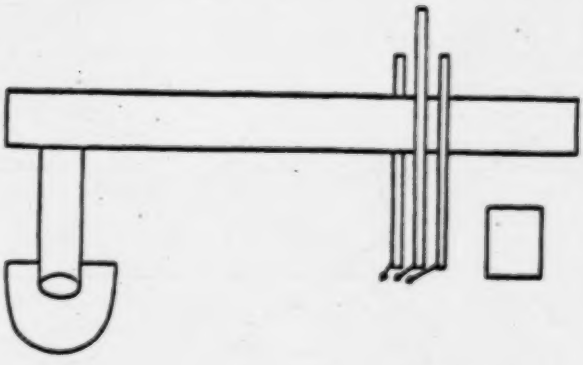
412 [824] For husking paddy, they use a mortar hollowed out of a huge log of "sal." Paddy is husked in this implement with the help of a wooden pestle called "tuk" by being wielded by the hands at the butt-end. The Santali *dheñki* (*husking implement*) is of the sort one

Ukhur



Tuk

Sal-wood



Sal Hole in the earth

[824] meets with in Hindu households. They are made of sal-wood ; only they look a bit crude. (See illustrations).

3t Mukherjea O. Y-4,5 (ca. 1933-1939) 1962
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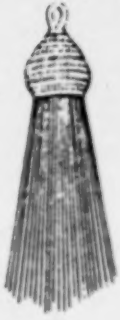
Baskets of different shapes and sizes, made of bamboos arrest one's attention in a Santal household. One of them, called "uduli," is used by women while marketing and carrying things to the field. (See illustration). They have their own winnowing fan called "hata" and use a basket named "gauni" for measuring paddy. The broom-sticks are neatly made of "kancho" (*Oriya*) reeds (Santali, *K'harang*). (See illustration).

Uduli



Jana

Hata

Industries

As far as cottage-industries are concerned, we did not find spinning and weaving a part of the serious programme of the Santals, as they depend on the neighbouring Hindu weavers to supply their clothes. However, in most houses, they possess these wheels and the indigenous ginning machine, which implies,

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241 on a steep hill-side; when the wood of the felled
171 trees is dry, generally toward the end of the hot season, it is burned. In this way the ground is cleared, and when the rains set in, the seed is sown without any ploughing. The present-day Paharias make small holes with a crow-bar and drop the seed into the holes, especially of bajra, Sorghum vulgare Pers., of maize and of a few other kinds. This is all, except that they may
241 pluck away weeds. It is said that when the Santals in former times followed a similar mode of cultivation they simply sowed the seed (especially bajra) at the top of the cleared hill-side, the spreading being left to the water of the rains flowing down; in some cases, a branch of a thorn-tree (Zizyphus Jujuba Lam.) is said to have been pressed into a flat shape and dragged over the ground to spread the seed".

243
[461] From early morning till evening they work in the field. Rice is their staple food; in it wealth is reck-
556 oned and from it they obtain their drink. Both sexes
262 work in the field. Every man tries to secure agricultural
[462] fields near his house and also near a streamlet flowing. They cultivate their soil and also gather natural produce when their crops do not grow due to want of rain or for some other reasons. The Santals prepare two kinds of rice field. One type is adjoining their houses, the other is at some distance away from their houses, which is on high land.

Preparation of ricefield :— After selecting the site, the Santals clear the field of jungle and vegetation. Then they surround it with ridges but if the land is
[412] slopy then they make the ridge only on the lower
[407] side. With the hoe and a heavy leveller (karha) they

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level the field as far as possible. With the help of plough the Santals plough the rice field several times before transplanting the rice seedlings. [243] [412] [407]

Transplantation :—In a rice field, during the months of May and June after making the earth loose they bring seeds in a basket and scatter them over the loose earth with the hand. Then the earth is again pressed down with the leveller and the seeds are thus buried in. [407] When the seedlings grow to a certain height they are then pulled out and transplanted two or three together in the prepared field. They transplant the seedlings about one foot apart and in rows. They have three kinds of transplanted paddy. The earliest varieties ripen in the month of September. The second one, which they transplant in high land, ripens in the month of October. The third variety becomes ripe between November and December and is transplanted in low land. In the Santal Paraganas the Santals have got another kind of crop which is done simply by sowing the paddy seeds in the prepared rice fields and which ripen in the month of August. The transplanting is generally done by the Santal women. [462]

Threshing :—When the crops grow properly and become ripe they cut them with sickle and carry them to a [412] place which they clean with earth and cowdung. There in the centre they keep one big stone, on which they strike the rice saplings. Sometimes they use bullocks for threshing. [231] A few bullocks, tied in a line, walk round and round on the spreading straw. With the above processes they separate the paddy from the stalk. Then with the winnowing fan they clean the paddy [412] separating them from other impurities.

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[facing P. 22]

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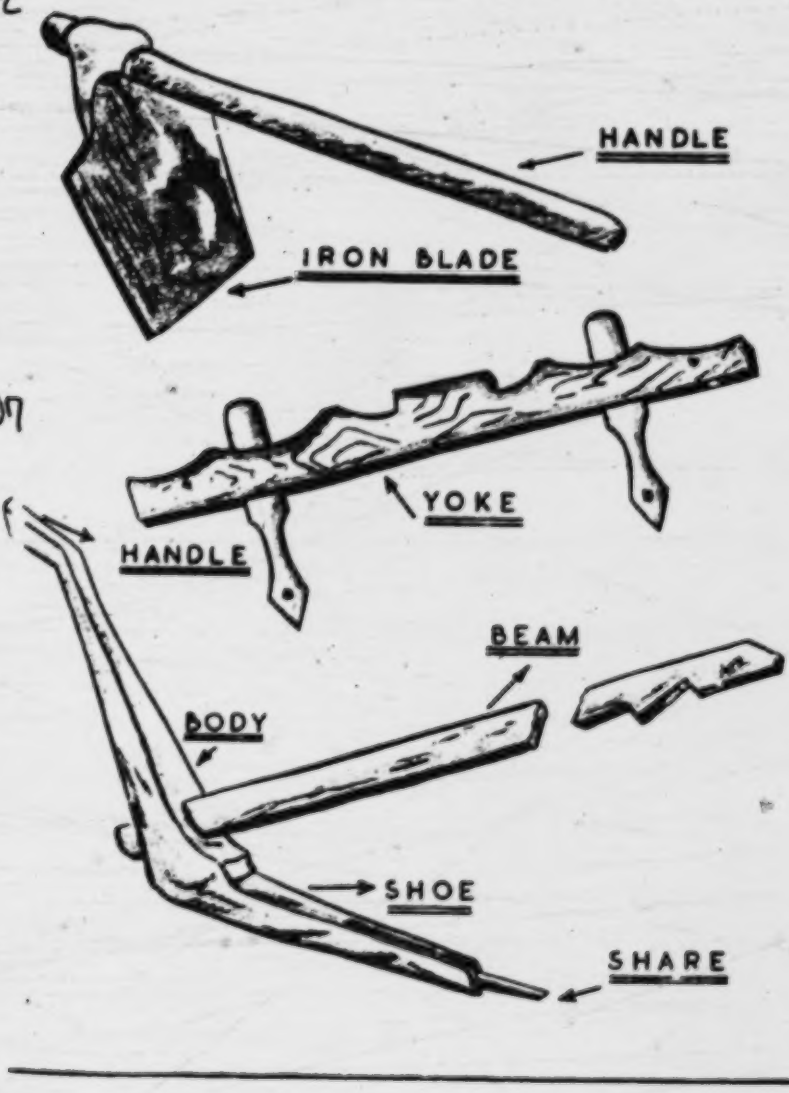

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243 Before husking, the Santals treat the paddy in the following ways. First they soak the paddy in water by keeping in an earthern vessel for several hours, then they boil the soaked paddy. After boiling they spread the paddy on the courtyard for drying. They do not keep the paddy long in the sun because too much dried paddy will be brittle and during the time of husking the rice will break into pieces. After drying they store the paddy in baskets which they prepare with the strands of straw. Sometime they do it not by boiling but only drying in the sun. The paddy treated thus is husked either with a *"dhenki"* (husking machine) or with the pestle and mortar. To get clean rice the Santals husk the paddy more than once. Then with the winnowing fan they remove the husk separated from the grain.

[412] [407]

AGRICULTURAL IMPLEMENTS

407 [177] **Plough** :—The Santals who live near the Bengal border or in low lands use generally the same type of plough which is used in Bengal, but the plough which is commonly used by the Santals is somewhat different from the Bengal plough.

The Santal plough consists of mainly, three parts, (*a*) the plough proper (nahel), (*b*) the plough beam (isi), (*c*) the yoke (arar).

The plough proper is made of a single piece of wood which is slightly curved forming an angle generally of 130° at its middle part where the body and the shoe meet each other. The handle (Karmba) which is four to six inches long and roughly circular in cross-section is not a separate piece of wood but simply a projected outward piece coming out from the body.

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407 of the yoke is carved into steps which facilitates tying the yoke with the beam by means of a twisted leather thong (mangle). A man from behind drives the bullocks and regulates the pressure of the plough-share on the soil by holding the handle and the soil is furrowed.

Leveller (karha and raksa) :—The leveller is used to level the field and to press the soil. A detailed description of it is given by Rev. Bodding in his memoir, "How the Santals live", which is as follows :—

"The karha is a piece of wood, some 1.5 m. (more or less) long, some 0.3 to 0.4 m. broad and some 10 cm. thick at the top side, and gradually sloping down to a broad edge. As they have no saws, the Santals (who make all such things themselves) fashion the karha with axe and adze. It is made of some strong and heavy wood (Sal, Mahua, etc.). In the middle of the top side a handle (the karha karmba) is fixed in a hole cut for the purpose. It is a straight piece of wood. The size of the karha varies according to needs; the smaller one is called dangra karha, bullock-leveller, and the larger one kada karha, buffalo-leveller. At each end there is ordinarily what is called nakic, comb, having one, two or three 'teeth', called sula, on which an iron ring called *kalka*, is slipped down, when the karha is to be used. This form is called *nakic karha*. In one form of karha is put through the hole and kept in position by a piece of wood inserted, to prevent the *kalka* from slipping through. This form is called *rotok karha*, cut through leveller (from *rok* to cut). There is a third form called *rotok nakis karha*; this is so large that it would not be convenient to have the *nakic* at the two

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"The *raksa* resembles the *karha*. It is a piece of wood about two to three mm. long and 15 to 20 cm. broad, slightly thinner than a *karha*. The *raksa* is slighly curved and has an edge. It has two holes cut equidistant from the centre for the *kalka*, and has a handle (*raksa karmba*) fixed in the middle. It resembles the *rotok* and is worked very much like *karha*. It is used only for levelling rice-fields just before the planting, and as it is used in watery mud, there is no need for the same strength as in the *karha*. Only few men in a village have a *raksa*. They willingly lend it to those who need such an implement."

406

412

Hoe (Kudi):—The Santal *kudi* is an ordinary type of hoe which is used in Bengal and in some other parts of India. The implement consists of two parts—one is wooden handle and other is iron blade. The handle is about 2'-6" long, roughly circular in cross-section about 2" in diameter and slightly thicker at one end where it is to be inserted into the socket of the blade. The blade is made of a flat sheet of iron. It consists of a body which is more or less rectangular in shape, twelve inches long and eight inches broad. The side edges of the body are slightly concave in outline. The broad projected rear portions of the body form the shoulders and from the middle of this side the neck rises. The neck ends with a socket in which the wooden handle is inserted. The Santals use this for digging earth and also with this they make and repair ridges of the rice fields.

Mallet (Clod Breaker)—It is a wooden hammer. It consists of two parts, wooden handle and a cylindrical wooden head which acts as a hammer. The handle is

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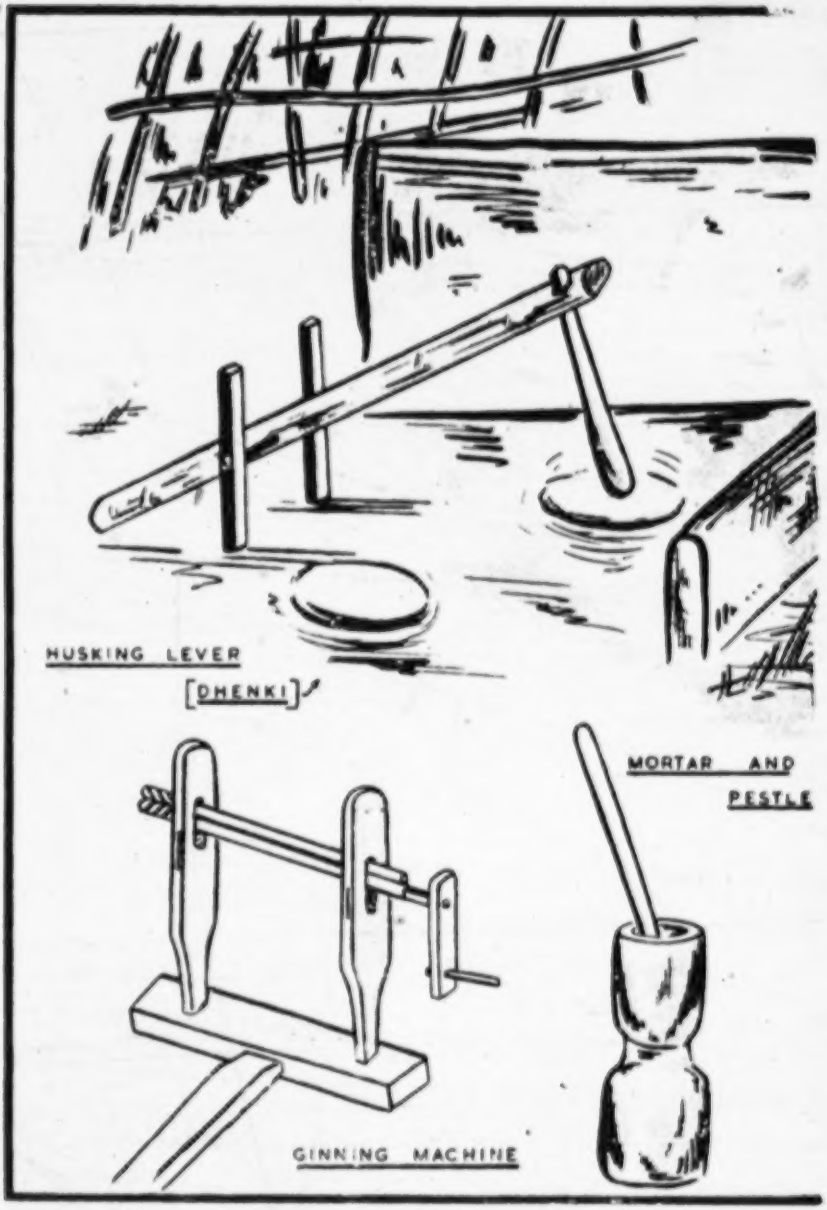
[facing P. 27]

407



412 →

Ginning machine description see (page 44)

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412

short about three feet in length and one inch in diameter, which is inserted in a perforated hole of the cylindrical hammer and a little of the handle comes out of the hammer, where a wooden clip is fitted so that the handle may not come out of the hammer It is generally used for breaking big clods of earth.

Mortar and Pestle:— The mortar is made from a hard log of wood. One side of it is scooped out to form a deep cup-like pit having a round bottom. The basal portion is a solid block of wood with a flat end which looks like the stand of the mortar. There is a constriction outside between the hollow portion and solid stand.

The pestle is made of a heavy, long, solid, cylindrical, wooden rod with a constriction at the middle which serves as the grip.

407

Husking lever (dhenki):— The implement consists of a horizontal lever and a short heavy pestle. The lever is made out of a long, heavy and solid wood which is about 6-feet long and roughly rectangular in cross-section. The anterior end of the lever is somewhat conical and near to this on its under surface a pestle made of a separate piece of wood is vertically fixed. The pestle is narrow, cylindrical in shape and about 2½ feet long. A wooden mortar is placed in the earth in such a way that the pestle falls vertically in that when the implement is in action. The posterior part of the lever is comparatively thinner and lighter than the anterior one. A hole which is perforated throughout the breadth of the lever is present at about a third of its length from the anterior end and a wooden bar is inserted into it. Two vertical poles with deep

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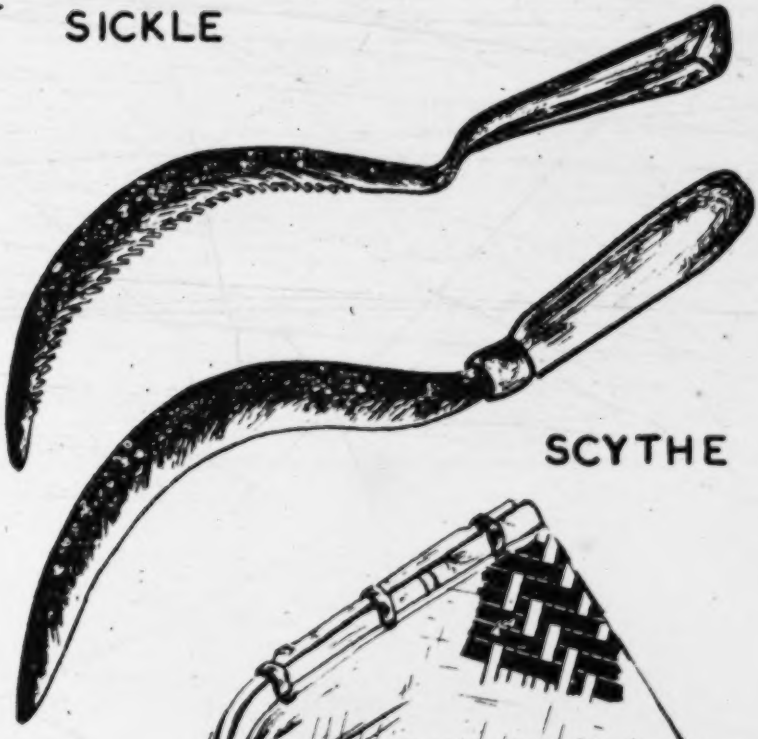
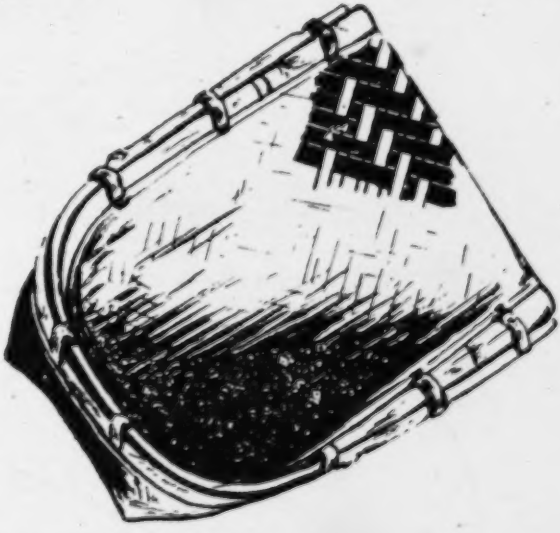
[facing p. 28]

• 412

SICKLE



SCYTHE



WINNOWING FAN

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407 notches, one in each, at its upper end are fixed into the ground on the either side of the lever. Both ends of the wooden bar rest on these notches. The whole arrangement is such that the pestle is raised along with the head of the lever by the pressure of the foot and falls on the grain by its own weight when the foot is removed.

412 **Scythe:**— The implement consists of a wooden handle and an iron blade. The wooden handle is solid, cylindrical in shape and more or less uniform in diameter. At one end it becomes suddenly narrower to provide the insertion of the iron ferrule.

The iron blade is made from a single piece of iron. It is crescentic in shape with the outer side convex and a concave sharp inner edge meant for cutting. The blade ends in a long tang which is introduced into the narrow end of the handle and strengthened by an iron ferrule which protects the handle from the splitting at the time of insertion of the tang of the blade The total length is 13 inches (5 inches handle and 8 inches blade) and the maximum breadth of the blade is about 1 inch.

Sickle:— The implement is entirely made of iron It consists of a blade and a handle made from the same piece of iron. The blade is curved and crescentic in shape. The anterior end of the blade is pointed. The concave edge of the blade is serrated obliquely and these teeth are directed inward. The basal portion of the blade ends in a hollow cylindrical handle. The portion of the handle near the blade is narrow and it gradually becomes broad at the free end.

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and it is conducted according to the provision of the Indian Christian Marriage Act.

Material Culture. Material culture of the Santals of the Santal parganas has not much changed. They now wear cotton dhuties, shirts and gangees and the women have accepted cotton saris which are used by the Hindus. The well-to-do Christian Santals wear European dress, *i.e.* coats, pants, shirts, socks and shoes. The christian women wear Saris, blouses and petti coat according to the Hindu style.

Some of the younger men and women of the Christian community go out for employment in the towns and cities and when they come back they display their superior material culture, such as fountain pen, wristwatches and other luxury goods.

Rice beer is their important drink but the Christian missionaries make propaganda in favour of total abstinence, and the Christian Santals are gradually giving up this habit and tea is being substituted for it. Machine made cigarettes are slowly coming into use.

In the preparation of rice it seems they have copied something from the Bengali Hindus. The Santals like the Bengalis use boiled rice for their food and unboiled rice for offering to their tribal deities.

The indigenous husking machine of the Santals is mortar and pestle, but they also use husking lever (dhenki) in husking rice which they have copied from their Hindu neighbours.

The Santals, when they speak among themselves, use their own language. But with the 'Dikhus' in the Santal Parganas they speak in broken Hindi and

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and legends of Hinduism. The linguistic evidence shows how their material culture has been vitally affected and has some bearing on the more elusive realm of thought and belief. The grammatical structure of Santali has little in common with that of the Indo-Aryan tongues. It is an agglutinative and not an inflectional language. There have, however, been large and extensive borrowings of words. An instructive example can be taken from their method of husking rice. The term *ḍhinki*, used for a foot-pedal rice husker, has been borrowed from Bengali, and a *ḍhinki* is found in almost every home. The rice that is husked at the time of making sacrifices must be prepared in the home of the village priest, and in its preparation the use of the older and more primitive *ukhuṛ* is obligatory. This is a wooden mortar in which the rice is husked by hand with a wooden pestle, or *tok*. Both these words are Austro-Asiatic in origin. It is likely that when the household adopted the new method of husking rice the tribe did not change over from the old method of husking the sacred rice for fear of a loss in efficacy. One reason given is that as the *ḍhinki* is operated by the foot, rice husked in the *ḍhinki* is unclean and so unfit for offering to the spirits. It may be that the association of a mortar and pestle with sexual symbolism enhanced its magical value. The symbolism in this case is familiar to the Santal mind, for one way of expressing differences of sex is to refer to boys as "pestles" and to girls as "mortars". The *ukhuṛ* has to be used by the medicine man in preparing remedies; it is also used at marriages, when the feet of the bridegroom's party are washed over an *ukhuṛ*, and an *ukhuṛ* filled with water is required during the death ceremonies. In Bengal the rice which forms the daily food of the people is boiled before husking, and the Santals follow the same method in preparing it; but the rice used in sacrifices, *aḍwa caole*, is never so treated, being dried in the sun.

Among their domestic animals, the fowl, the dog and the goat have non-Bengali names, while the names for pigeons, sheep, pigs and, most important of all, their cattle are borrowed. Fowls, goats and pigs are all used in their sacrifices. In the realm of wild life the Santal has found little need to borrow a vocabulary from his neighbours. Wild animals, birds, trees and shrubs, many fish and insects, also snakes, have Santali names. The same is true of most of the weapons used in hunting. Although the term for paddy is Santal, the names of all the implements now used in rice cultivation and the terms for the